What is claimed is:

1. An isolated polynucleotide comprising a polynucleotide sequence selected from the group consisting of:

(a) a polynucleotide having at least a 70% identity to a polynucleotide comprising the nucleotide sequence of SEQ ID NO:1; or

(b) a polynucleotide which is complementary to the polynucleotide of (a).

2. The polynucleotide of Claim 1 wherein the polynucleotide is DNA.

3. The polynucleotide of Claim 1 wherein the polynucleotide is RNA.

4. The polynucleotide of Claim 2 comprising the nucleic acid sequence set forth in SEQ ID NO:1.

5. A vector comprising the polynucleotide of Claim 1.

6. A host cell comprising the vector of Claim 5.

7. A process for producing a polynucleotide comprising: expressing an RNA from the host cell of Claim 6.

8. A method for the treatment of an individual having need to inhibit a ribosomal polynucleotide comprising: administering to the individual a therapeutically effective amount of a compound that binds to or interacts with a polynucleotide of Claim 1.

9. A method for identifying compounds which interact with and inhibit or activate an activity of the polynucleotide claim 1 comprising the steps of:
contacting a composition comprising the polynucleotide with the compound to be screened under conditions to permit interaction between the compound and the polynucleotide to assess the interaction of a compound, such interaction being associated with a second component capable of providing a detectable signal in response to the interaction of the polynucleotide with the compound; and determining whether the compound interacts with and activates or inhibits an activity of the polynucleotide by detecting the presence or absence of a signal generated from the interaction of the compound with the polynucleotide.

10. An antagonist that inhibits or an agonist that activates an activity a bacterial polynucleotide selected from the group consisting of: a polynucleotide comprising a nucleotide sequence which is at least 70% identical to the nucleotide sequence of SEQ ID NO:1, 2 OR 3, and a polynucleotide comprising a nucleotide sequence as set forth in SEQ ID NO:1, 2 OR 3, by:

binding a compound to a bacterial 50S ribosomal subunit;

binding a compound to a bacterial 70S ribosome

binding a compound to a ribosome under tRNA binding conditions;

binding a compound to a ribosome under tRNA binding conditions using activated ribosomes programmed with messenger RNA such as polyuridylic acid;

binding a compound to *Escherichia coli* 23S rRNA sequence;

binding a compound to *Escherichia coli* 23S rRNA at nucleotides 1971-2607

alteration of RNA secondary structure formed by nucleotides 1971-2607 of *Escherichia coli* 23S rRNA;

alteration of RNA secondary structure formed by domain V of *Escherichia coli* 23S rRNA;

modulation of the binding of SB-328636 (structure 2) to a ribosome;

modulation of the binding of SB-352408 (structure 3) to a ribosome;

modulation of the binding of SB-328636 (structure 2) to a ribosomal 23S RNA;

modulation of the binding of SB-352408 (structure 3) to a ribosomal 23S RNA;

modulation of the binding of SB-328636 (structure 2) to domain V of *Escherichia coli* ribosomal 23S RNA;

modulation of the binding of SB-352408 (structure 3) to domain V of *Escherichia coli* ribosomal 23S RNA;

binding a compound to a ribosomal RNA and a ribosomal protein;

binding a compound to ribosomal protein L4, L32, L33, L2 or L13;

modulating binding of ribosomal protein L4, L32, L33, L2 or L13 to a ribosome;

modulating binding of ribosomal protein L4, L32, L33, L2 or L13 to a ribosomal RNA;

modulation of the binding of a compound to G2061, A2062, or G2502;

modulation of the binding of a pleuromutilin to G2061, A2062, or G2502;

modulation of the binding of a chloramphenicol to G2061, A2062, or G2502;

modulation of the binding of *p*-azidopuromycin G2502;

modulation of the binding of a compound to A2407 and U2408;

modulation of the binding of a pleuromutilin to A2407 and U2408; or

binding a compound to nucleotides of 23S rRNA.

11. A method for the treatment of an individual suspected of being infected by a bacteria using the antagonist or agonist of claim 10.

12. The method of claim 10 wherein said bacteria is selected from the group consisting of a member of the genus *Staphylococcus, Staphylococcus aureus,* a member of the genus *Streptococcus,* and *Streptococcus pneumoniae.*

13. A method for inhibiting an activity of a bacterial ribosome by:

binding a compound to a bacterial 50S ribosomal subunit;

binding a compound to a ribosome under A-site tRNA binding conditions;

binding a compound to a ribosome under A-site tRNA binding conditions using activated ribosomes programmed with polyuridylic acid;

binding a compound to *Escherichia coli* 23S rRNA sequence;

binding a compound to *Escherichia coli* 23S rRNA at nucleotides 1971-2607;

alteration of the RNA secondary structure formed by nucleotides 1971-2607 of *Escherichia coli* 23S rRNA;

alteration of RNA secondary structure formed by domain V of *Escherichia coli* 23S rRNA;

modulation of the binding of SB-328636 (structure 2) to a ribosome;

modulation of the binding of SB-352408 (structure 3) to a ribosome;

modulation of the binding of SB-328636 (structure 2) to a ribosomal 23S RNA;

modulation of the binding of SB-352408 (structure 3) to a ribosomal 23S RNA;

modulation of the binding of SB-328636 (structure 2) to domain V of *Escherichia coli* ribosomal 23S RNA;

modulation of the binding of SB-352408 (structure 3) to domain V of *Escherichia coli* ribosomal 23S RNA;

binding a compound to a ribosomal RNA and a ribosomal protein;

binding a compound to ribosomal protein L4, L32, L33, L2 or L13;

modulating binding of ribosomal protein L4, L32, L33, L2 or L13 to a ribosome;

modulating binding of ribosomal protein L4, L32, L33, L2 or L13 to a ribosomal RNA;

modulation of the binding of a compound to G2061, A2062, or G2502;

modulation of the binding of a pleuromutilin to G2061, A2062, or G2502;

modulation of the binding of a chloramphenicol to G2061, A2062, or G2502;

modulation of the binding of *p*-azidopuromycin G2502;

modulation of the binding of a compound to A2407 and U2408;

modulation of the binding of a pleuromutilin to A2407 and U2408; or
binding a compound to nucleotides of 23S rRNA.

14. The method of claim 13 wherein said bacteria is selected from the group consisting of: a member of the genus *Staphylococcus, Staphylococcus aureus,* a member of the genus *Streptococcus,* and *Streptococcus pneumoniae.*

15. A method for treating an individual infected by a bacteria comprising the steps of contacting an individual suspected to be infected by a bacteria with an antibacterially active amount of a composition comprising a pleuromutilin compound wherein said contacting leads to inhibition of an activity of a bacterial ribosome by:
binding a compound to a bacterial 50S ribosomal subunit;
binding a compound to a ribosome under A-site tRNA binding conditions;
binding a compound to a ribosome under A-site tRNA binding conditions using activated ribosomes programmed with polyuridylic acid;
binding a compound to *Escherichia coli* 23S rRNA sequence;
binding a compound to *Escherichia coli* 23S rRNA at nucleotides 1971-2607
alteration of the RNA secondary structure formed by nucleotides 1971-2607 of *Escherichia coli* 23S rRNA;
alteration of RNA secondary structure formed by domain V of *Escherichia coli* 23S rRNA;
modulation of the binding of SB-328636 (structure 2) to a ribosome;modulation of the binding of SB-352408 (structure 3) to a ribosome;
modulation of the binding of SB-328636 (structure 2) to a ribosomal 23S RNA;
modulation of the binding of SB-352408 (structure 3) to a ribosomal 23S RNA;
modulation of the binding of SB-328636 (structure 2) to domain V of *Escherichia coli* ribosomal 23S RNA;
modulation of the binding of SB-352408 (structure 3) to domain V of *Escherichia coli* ribosomal 23S RNA;
binding a compound to a ribosomal RNA and a ribosomal protein;
binding a compound to ribosomal protein L4, L32, L33, L2 or L13;
modulating binding of ribosomal protein L4, L32, L33, L2 or L13 to a ribosome;
modulating binding of ribosomal protein L4, L32, L33, L2 or L13 to a ribosomal RNA;
modulation of the binding of a compound to G2061, A2062, or G2502;
modulation of the binding of a pleuromutilin to G2061, A2062, or G2502;

modulation of the binding of a chloramphenicol to G2061, A2062, or G2502;

modulation of the binding of *p*-azidopuromycin G2502;

modulation of the binding of a compound to A2407 and U2408;

modulation of the binding of a pleuromutilin to A2407 and U2408; or

binding a compound to nucleotides of 23S rRNA.